



# Update

## MISSOURI DEPARTMENT OF ELEMENTARY AND SECONDARY EDUCATION

Issue 24  
July 2002

### Technology Education

**The Missouri Institute for Technology Education**, designed to assist Missouri public schools in their transition from industrial arts, industrial technology, and other academic disciplines to technology education, is preparing for its second year. The one-week summer session will begin the evening of **Monday, July 29, 2002** and conclude Friday afternoon, **August 2, 2002**, at Central Missouri State University in Warrensburg, Missouri. The Institute is a year-long activity which includes two "callback" sessions during the year. Upon successful completion of the entire Institute, participants will be awarded three semester hours of credit (at no cost) from Central Missouri State University.

There is a limit of 50 participants for the Institute, and those schools who are recipients of the FY-2003 Technology Education Grant Awards Program (TE GAP) will need to register each of their grant instructors. Please contact me regarding specific questions on participant eligibility and the MITE requirement for FY-2003 TE GAP schools.

There will be no registration fee charged for participants this year. There is no cost to the LEA/instructor for tuition fees, the double-occupancy room (unless they request a private room, for which they must pay 1/2 the room rate), or meal costs (reimbursed up to \$17.50 per day for meals). Transportation to and from the Institute is the responsibility of the LEA.

Please have your instructors complete the application found on at:

[http://www.dese.state.mo.us/divvoted/teched\\_mite.htm](http://www.dese.state.mo.us/divvoted/teched_mite.htm) and submit it to me during Summer Conference:

Doug Miller  
Technology Education Supervisor  
Missouri Department of Elementary and Secondary Education  
PO Box 480  
Jefferson City, MO 65102-0480  
Fax: 573.526.4261

Dr. Michael Wright and Ben Yates, MITE Co-Directors, will mail specific logistical information regarding the Institute directly to you in the near future.

Thank you for your support of Technological Literacy. Please contact me at [dmiller1@mail.dese.state.mo.us](mailto:dmiller1@mail.dese.state.mo.us) or by phone 573.751.7764 with your questions.

**Project Lead The Way!** Project Lead The Way (PLTW) seeks to create dynamic partnerships with our nation's schools to prepare an increasing and more diverse group of students to be successful in engineering and engineering technology programs by providing:

- A Fully-Developed Curriculum for High School and Middle School
- Extensive Professional Development for Teachers
- School Counselor Professional Development Conferences
- Affordability Through an Optional National Bid
- Key Partnerships with State Education Departments
- College Level Certification, College Course Credit and Middle School Recognition
- Systematic Evaluation

- Continuous Improvement, using Curriculum Development Framework

You are invited to check out PLTW interest session, Wednesday, July 24<sup>th</sup>, Kemper Hall, Room 205, this is a DOUBLE SESSION workshop at the Annual Missouri ACTE/TEAM Summer Conference.

**The Technology Education Grant Awards Program** (TE GAP) has completed its 25<sup>th</sup> year, serving over 600 Missouri schools this year. During these 25 years of service the grant has helped over 600 schools improve their Industrial Technology Programs. This year the following schools were awarded the grant for the FY 2003:

**096-098 1050**

Affton 101 School District

**Affton High School**

*Mr Tom Badino*

8309 Mackenzie Road

Affton, MO 63123-3455

**011-082 1050**

St. Joseph School District

**Benton High School**

*Mr Mark Blakley*

5655 S. 4th St.

St. Joseph, MO 64504-1708

**005-123 1050**

Cassville R-IV School

**Cassville High School**

*Mr Steve McNaught*

1825 Y Highway

Cassville, MO 65625

**096-102 1050**

School District of Clayton

**Clayton High School**

*Mr Matt Dieckhaus*

#1 Mark Twain Circle

Clayton, MO 63105-1613

**042-124 3000**

Clinton School District #124

**Clinton Middle School**

*Ms Laura Henny*

709 S. 8th Street

Clinton, MO 64735

**039-142 1050**

Fair Grove R-10 School District

**Fair Grove High School**

*Mr Roger Kathka*

132 N. Main St.

Fair Grove, MO 65648-8436

**019-149 1050**

Cass R-IX School District

**Harrisonville High School**

*Mr Jerry Foerschler*

1504 E. Elm

Harrisonville, MO 64701

**096-088 1075**

Hazelwood School District

**Hazelwood West Junior/Senior High School**

*Mr Matt McClellan*

#1 Wildcat Lane

Hazelwood, MO 63042

**054-039 1050**

Lafayette County C-I School Disstrict

**Lafayette County C-I High School and Middle School**

*Mr Steve Goodman*

807 West 31st Street

Higginsville, MO 64037

**112-102 1050**

Marshfield R-I School District

**Marshfield High School**

*Mr Steven C. Spicher*

370 State Highway Rd

Marshfield, MO 65706

**022-093 2050**

Ozark R-VI Schools  
**Ozark Junior High**  
*Mr Gerald Chambers*  
 1506 S. 6th Avenue  
 Ozark, MO 65721

**096-095 1075**

Parkway School District  
**Parkway North High School**  
*Mr Scott Phillips*  
 12860 Fee Fee Rd.  
 Creve Coeur, MO 63146-4431

**096-095 1090**

Parkway School District  
**Parkway South High School**  
*Mr Charles Riggs*  
 801 Hanna Rd.  
 Manchester, MO 63021-6771

**096-095 1080**

Parkway School District  
**Parkway West High School**  
*Mr Cliff Amen*  
 14653 Clayton Road  
 Ballwin, MO 63011

**024-087 1050**

Smithville R-II School District  
**Smithville High School**  
*Mr Scott Vitek*  
 645 South Commercial  
 Smithville, MO 64089-9381

**005-121 1050**

Washburn School District  
**Southwest High School**  
*Mr Edward Harrall*  
 Hwy 90-PO Box 297  
 Washburn, MO 65772

**048-077 1050**

Independence School District  
**Truman High School**  
*Mr Nate Moore*  
 1223 North Noland Road  
 Independence, MO 64050

**DESE Introduces a New Web Design** The Division of Vocational and Adult Education has a new web design. Check out our new format and be sure to reset your bookmarks, <http://www.dese.state.mo.us/divvoted/index.htm>

**A Call for Presentations! ITEA** *All technology education professionals are invited to participate in the 65th Annual ITEA Conference as a presenter or chairperson. Those wishing to participate must complete an application form.* Our Missouri Technology Education Professionals have a great opportunity to contribute many of our quality program concepts and ideas. I would like to challenge each of you to review those things you do that are technologically based and complete an application to present at the 2003 ITEA Conference in Nashville, Tennessee. You can download the application at: <http://www.iteawww.org/2003nashville.html>.

**A Call for Research Papers! ACTE/TED** Technology Education professionals are invited to submit an abstract of their research for consideration for the annual research symposium. Membership in the TED Division of ACTE is required and membership information has been provided for nonmembers wishing to participate. Two finalists will be selected no later than August 31, 2002 and will be asked to submit a final research paper no later than **October 15, 2002**. The finalists will make formal presentations at the TED/NAITTE Joint Research Symposium.

All interested professionals should respond to this ***Request for Research Papers*** by providing all necessary information no later than **July 31, 2002** to:

Sidney A. Rader, DTE  
 Landstown High School  
 2001 Concert Drive  
 Virginia Beach, VA 23456  
 W# (757) 468-7409 FAX# (757) 468-1860  
 E-mail: [sarader@vbcps.k12.va.us](mailto:sarader@vbcps.k12.va.us)  
 or [sarader1@cox.net](mailto:sarader1@cox.net)

Members of the TED Research Committee will evaluate papers that are submitted for consideration. Participants will be responsible for their own conference expenses. Each of the research symposium presenters will receive a recognition plaque and the 2002 TED/NAITTE Research Award winner will receive a \$500.00 cash award

**TEAM Fall Conference 2002** – Saturday, October 5, 2002 at Central Missouri State University, College of Applied Sciences and Technology, Grinstead Building, Warrensburg, Missouri. We are now looking for presenter's for this growing annual event. Contact: Ben Yates at: (573) 543-4304 or email at: [byates@cmsu1.cmsu.edu](mailto:byates@cmsu1.cmsu.edu)

## Missouri TSA



**Membership.** We just completed another exciting year of growth in Missouri TSA. We closed the year with 3,260 student members in 36 chapters proudly boasting an all time high of 28 high school chapters, 7 middle school chapters, and 1 elementary chapter.

**National TSA.** Missouri was represented very well at the Annual National TSA Conference in Denver, Colorado, June 24-28, 2002. There were 12 Missouri schools who attended Nationals this year, 7 of which had students place in the top ten finalists in 10 different events. You can view the complete list of National winners by visiting the National TSA web site at: [http://www.tsaweb.org/conferences\\_programs/finalists/2002\\_finalists.html](http://www.tsaweb.org/conferences_programs/finalists/2002_finalists.html).

**State Officers.** Our 2002-2003 Missouri TSA State Officer Team has been hard at work planning and preparing for an even greater year of growth and leadership training, as well as planning a special project for a scholarship fund raiser organized by the state officer team. You can view more information concerning our State Officers at: [http://www.dese.state.mo.us/divvoted/teched\\_mo\\_tsa.htm](http://www.dese.state.mo.us/divvoted/teched_mo_tsa.htm).

## **Dynamic Project. North Carolina State University Launches The Tech-Know Project With a Grant From The National Science Foundation**

Launch a World Wide Web site that features your school's technology education program, the cyberspace pursuit competition assignment states. And each year, some of the 150,000 Technology Student Association students accept this leading-edge challenge throughout the country to prepare for TSA's local, regional, state and national competitions.

With a four-year TECH-know project grant approved last August, from the National Science Foundation, technology education teachers will prepare students for this cyberspace pursuit project and 19 other technology education competitions, using newly written uniform curriculum standards. North Carolina State University's \$1.52 million grant from the National Science Foundation will spearhead the creation of integrated instructional materials for technological literacy using competitions developed by TSA. The TECH-know project, coordinated by Dr. Richard Peterson, NC State associate professor of technology education, will aim to write instructional materials that will teach fundamental science, mathematics, and technology concepts.

Technology teachers will comment about the proposed curriculum at TSA's national conference, June 24-28, in Denver. Also, teachers and industry professionals will focus on TSA's 20 technology education topics at the North Carolina State's Instructional Materials Development Conference in Raleigh this July 21-26. The curriculum will be written for problems that cover topics in construction, communication, manufacturing, and transportation technology.

"We anticipate that the TECH-know project will have a positive effect on students nationwide," Peterson says. "This is the direction in which education is going - engaging students in hands-on, practical and participatory activities. Pulling together the best materials and resources from successful teachers into one instructional package will enable more teachers and students to get involved in learning basic science, mathematics, and technology through problem-solving activities."

Tom Shown, Technology Education Consultant for the Department of Public Instruction in Raleigh, North Carolina, will be coordinating the curriculum contributions of teachers. "These materials will prove invaluable to the states' departments of education in the development of their technology education curriculum," he said.

TSA's competitions engage students in hands-on, problem-based learning and are based upon fundamental science, mathematics, and technology concepts, according to Dr. Rosanne T. White, executive director of the Technology Student Association. "Although our competitions are motivational and challenging to students,

instructional materials for our technology education teachers have been missing," she explained. "We are confident that The TECH-know project will fill this gap and that our students members will benefit from this new curriculum."

The project has the support and participation of John Penick, professor and department head of mathematics, science and technology education as well as Sarah Berenson, professor of mathematics education, both of North Carolina State University.

The non-profit organization ExplorNet, dedicated to improving technology-based learning in schools, will contribute to the TECH-know project. ExplorNet Chief Operating Officer Victoria Deaton will coordinate participating industry professionals. These business representatives will use their practical expertise to review the proposed TECH-know project's curriculum. They will help identify essential concepts that teachers should teach and students will need to learn to solve real-world problems successfully.

The TECH-know project's activities and curriculum materials will also conform to the new national Standards for Technological Literacy. The new materials will establish benchmarks for problem-solving, design, and content in technology education. Since this new technology education curriculum publication will be geared toward TSA's competitive events, profits from its sale will be invested in TSA to develop new materials. This National Science Foundation grant confirms the value of using TSA events to implement standards-based curriculum.

Curriculum for the following modules will be written:

Agricultural and biotechnologies; cyberspace pursuit; desktop publishing; digital photography; dragster design challenge, environmental challenge, film technology; flight challenge, manufacturing prototype; mechanical challenge; medical technologies, radio control transportation; scientific and technical visualization (SciVis); structural challenge; structural engineering; system control technology; technology challenge, and transportation challenge. The agricultural and biotechnologies competition as well as the medical technologies competition are taught at both the middle and high school levels, using different criteria and procedures.

For more information about the TECH-know project, contact [techknow@gw.ncsu.edu](mailto:techknow@gw.ncsu.edu)

**More Information About TSA.** If you are interested in starting a new Missouri TSA chapter, you can find a number of helpful resources on the Missouri TSA web site at: [http://www.dese.state.mo.us/divvoted/tech\\_ed\\_index.htm](http://www.dese.state.mo.us/divvoted/tech_ed_index.htm). It is recommended by the experienced advisors that the Fall Leadership Connections Conference should be your first priority in organizing your chapter. You will find information about this and other activities on the web site.

**A challenge for all Missouri TSA chapters** to consider for the approaching new year: Encourage your chapter to adopt a policy of community service, school service, leadership involvement (such as committees, chapter officers, etc.) hours as a requirement to attend and compete at the Missouri State Conference 2003. To do this, the calendar of activities will need to be planned at the beginning of the year to accommodate all of the scheduling. *"There is no limit to what can be accomplished if it doesn't matter who gets the credit."* Ralph Waldo Emerson

## Technology Education Resources

**CTTE Teacher Recruitment** - If you are looking for resources or curriculum to assist you in recruiting Technology Education Teachers, here it is! Use this lesson to introduce students to Technology Education teaching careers! (PDF File) available from the CTTE Web Site at: <http://teched.vt.edu/ctte/>



ITEA's IdeaGarden Listserv is a free resource offered to members only. A teacher-to-teacher format for those interested in teaching technology. Two outstanding veteran technology teachers, Gary Wynn, DTE and Ron Yuill, DTE, both from Indiana, will field questions, offer ideas, chase resources, and interact with listserv subscribers. <http://www.iteawww.org/J6.html>.

**Bright Ideas** is a service provided by the International Technology Education Association with the intent of promoting technological literacy in our school systems. This online publication is emailed four times per year **FREE** to subscribers. <http://www.iteawww.org/brightideasform.html>.

**Technically Speaking!** Technological literacy, a broad understanding of the human-designed world and our place in it, is an essential quality for all people who live in the increasingly technology-driven 21st century. This website explains what technological literacy is, why it's important, and what's being done to improve it. <http://www.nae.edu/nae/techlithome.nsf>.

**ERIC, a national education information network**, is part of the National Library of Education, U.S. Department of Education. The goal of ERIC is to identify, select, process, and disseminate information in education. The ERIC system consists of 16 clearinghouses, each serving a specialized field of education; adjunct clearinghouses on specific aspects of education; and support services. ERIC components offer products and services including ERIC Digests, major publications, user products, bibliographies, referrals, and computer searches.

For more information about ERIC, go to: <http://www.ericacve.org/>.

### Thoughts for Consideration



- You've carefully thought out all the angles.
- You've done it a thousand times.
- It comes naturally to you.
- You know what you're doing, it's what you've been trained to do your whole life.
- Nothing could possibly go wrong, right? **Think Again!**

### Are you missing your luggage?



- Has your flight been delayed?
- How could this have been prevented?

If your students were assigned the problem to prevent this from happening again what design solutions would they come up with besides the obvious smart remark's.

### Frequently Asked Questions

What are the safety concerns for a Technology Education Lab? Should I have safety zones marked? What is the law concerning eye protection in the lab? What about safety guards for machines, are they required? Should I post safety rules? Where should the safety rules be posted? Should I keep an individual record for each student on safety performance? Is there a checklist that I can use for a general walk through to evaluate my Technology Education lab for proper safety compliance? Should we have a dust collector? Do we need a ventilation system?

The answers to each of these questions can be found in the Missouri Public Schools Safe Facilities Guide produced by IML of the University of Missouri Columbia, #90-0010-I. It is also available on the DESE web site at: [http://www.dese.state.mo.us/divvoted/Resources/school\\_facilities\\_guide/index.html](http://www.dese.state.mo.us/divvoted/Resources/school_facilities_guide/index.html).

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TE Update is an electronic newsletter  
for Missouri Technology Education Professionals

To receive this newsletter  
send an email request to [dmiller1@mail.dese.state.mo.us](mailto:dmiller1@mail.dese.state.mo.us)

[http://www.dese.state.mo.us/divvoted/tech\\_ed\\_index.htm](http://www.dese.state.mo.us/divvoted/tech_ed_index.htm)